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Mini Review

Plastic Surgery

**ABSTRACT:**

Introduction: Basal cell carcinoma is an increasingly studied condition with a growing incidence worldwide, it is the most frequent neoplastic pathology worldwide, with a high negative socioeconomic impact. Currently, there are multiple treatments for basal cell carcinoma, the main international guidelines such as the American Cancer Society, American Journal of Clinical Dermatology, and the International Agency for Research on Cancer continue to classify surgery as the treatment of choice. In this case presentation, the skin defect was covered with a double hatchet flap secondary to surgical excision of basal cell carcinoma located on the scalp in the frontoparietal region. An 80-year-old male diagnosed with basal cell carcinoma in the right frontoparietal region, has a history of excision of basal cell carcinoma in the nose in October 2019. He presents a lesion on the scalp with pearly edges, minimal telangiectasias, sunken center, not painful, not hemorrhagic. Surgical excision of basal cell carcinoma was performed with reconstruction of the scalp using a double hatchet flap.

Keywords: Scalp reconstruction, double hatchet flap, basal cell carcinoma, closing skin defects, hatchet flap.

Introduction

Basal cell carcinoma is an increasingly studied condition with a growing incidence worldwide, it is the most frequent neoplastic pathology worldwide, with a high negative socioeconomic impact.¹ The most frequent age of presentation is 60 years old, it is known that between 55 and 75 years old, basal cell carcinoma is 100 times more frequent than in those under 20 years old and the hereditary family history of basal cell carcinoma occurs in 30-60% of cases, the incidence is higher in men (30% more in men and a ratio of 1.5-2:1) especially in the superficial type, related to significant exposure to ultraviolet rays (UV), it is suspected that it is related to the various activities labor.^{2,3} Personal history of basal cell carcinoma increases the risk of a second basal cell carcinoma by 36-50%.⁴

Different therapeutic alternatives have been described for the resection of basal cell carcinoma. In patients with large skin defects, skin grafting or closure by secondary intention could be considered, especially in older patients. However, the aesthetic results are suboptimal, with depressed, dyschromic scars and no hair.⁵ In this case presentation, the skin defect was covered with a double hatchet flap secondary to surgical excision of basal cell carcinoma located on the scalp in the frontoparietal region (**Figure 1**).

Hatchet flap

First described by Emmet⁶ in 1977, the hatchet flap is a triangular local rotation flap, with a greater or lesser degree of advancement and with a back cut at the base of the flap, through which it derives its vascular supply. This is a very versatile type of flap that can be used to repair defects anywhere on the body; for example, it is particularly appropriate for use on the limbs and after excision of the pulp of a finger or toe.⁷ For lesions in the craniofacial territory, it is useful for repairs of the frontal and temporal regions.⁸

It is a rotation and sliding flap, it is called that because it is designed taking advantage of the upper edge of a circular effect at its ends, and an angled incision is also sought to be able to close it directly. When a circular lesion is excised, the triangles of skin that cannot be resected to convert a circle into an ellipse can be used to close the defect and they form the hatchet flaps. These flaps are basically of the V-Y sliding type.⁹ The use of the double hatchet flap is proposed as a valuable technique for the reconstruction of scalp defects.⁸

Case report

An 80-year-old male diagnosed with basal cell carcinoma in the right frontoparietal region, has a

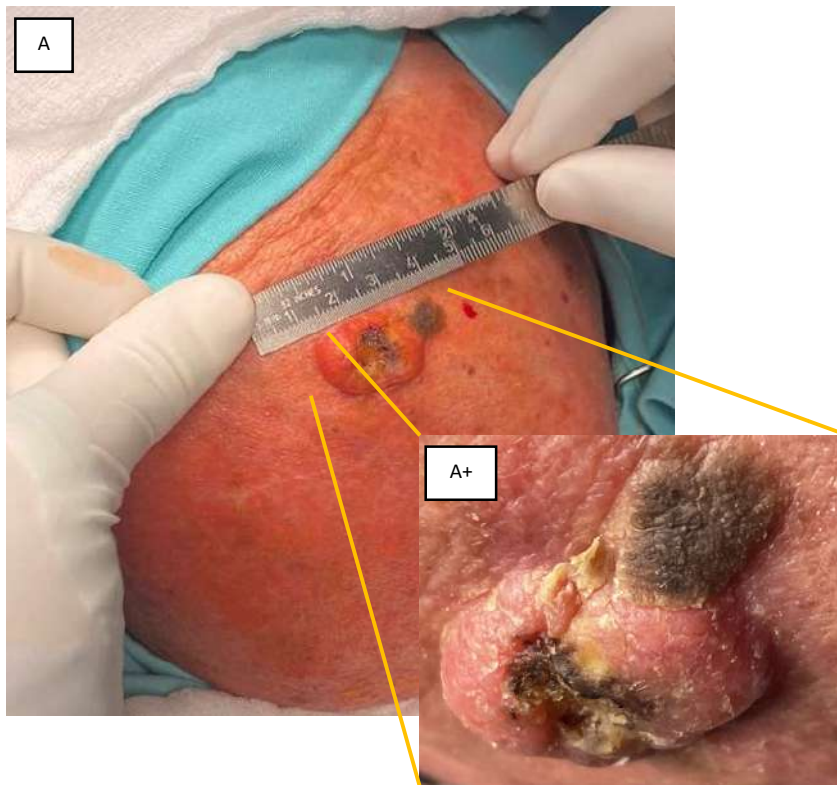


Figure 1. A. Basal cell carcinoma in the scalp. A+. Lesion magnification with 2x.

history of excision of basal cell carcinoma in the nose in October 2019. He presents a lesion on the scalp with pearly edges, minimal telangiectasias, sunken center, not painful, not hemorrhagic. Surgical excision of basal cell carcinoma was performed with reconstruction of the scalp using a double hatchet flap (**Figure 2**).

Currently, there are multiple treatments for basal cell carcinoma, the main international guidelines such as the American Cancer Society, American Journal of Clinical Dermatology, and the International Agency for Research on Cancer continue to classify surgery as the treatment of choice, since it achieves a high healing rate compared to other techniques.

Whenever possible, it should be the direct closure of the primary skin defect and otherwise a local flap or a graft should be chosen, for which extensive anatomical knowledge is essential to avoid frequent complications such as hemorrhage, hematoma, necrosis aesthetic damage. The main drawback of the flap for closure of these skin defects is that most incisions produce scars that are not parallel to the tension lines of the relaxed skin, so extensive debridement of the surrounding skin is recommended.

Conclusion

The double hatchet flap is an excellent alternative for closing skin defects on the scalp.



Figure 2. A. Skin defect due to lesion resection, B. Double hatchet flap dissection, C. Skin closure.

Conflicts of Interests

There was no conflict of interest during the study, and it was not funded by any organization.

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